320. ETIOLOGY, CLINICAL FEATURES AND METHODS OF TREATMENT OF MOLAR-INCISOR HYPOMINERALIZATION

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Introduction: Molar Incisor Hypomineralization (MIH) is defined as hypomineralization of systemic origin, affecting 1 to 4 permanent molars and it is often Associated with enamel defects in perma-nent incisors. The MIH term was firstly introduced by Weerheijm in 2001. It has been proved that MIH prevalence varies between 2,8 and 40% and that this condition can be determined by the in-fluence of several prenatal and postnatal factors between the 18th week of pregnancy and 3-5 years of age. The objective of the study is to describe the etiological factors, clinical features of hypomineralized enamel and treatment methods in molar incisor hypomineralization.

Materials and methods: 10 subjects were evaluated clinically and paraclinically, and at a separate session, their parents completed a medical history questionnaire and adhesive composite treatment was provided.

Discussion results: Although the MIH etiology is multifactorial, including prenatal and postnatal factors and it has not been fully understood yet, children born preterm and those suffering various systemic pathologies during the first 3 years, are more likely to develop MIH. Clinical features in MIH include demarcated yellow, white or brown opacities, usually located on the buccal and occlu-sal surfaces. The lesions on the molars are more extensive and hypersensitivity may be Associated, which can lead to difficulties in toothbrushing. MIH affected teeth are more fragile, therefore caries may develop easily. The methods of treatment include topical fluoride varnish applications and composite restorations.

Conclusions: MIH affected teeth may lead to tooth structure loss and caries development. Early diagnosis and treatment of MIH is important due to the significant role of the permanent molars in development of the occlusion.

Keywords: MIH, hypomineralization, developmental enamel defect, adhesive restorations

321. MANUAL INSTRUMENTATION COMPARE TO ROTARY SYSTEM IN ENDODONTIC TREATMENT.

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Introduction. Endodontic therapy is a branch in dentistry concerned to anatomy, physiology and pathology of dental pulp and periradicular tissue, including the normal pulp. This specialty of dentistry is managed with etiology diagnosis, prevention, and treatment of the dental pulp and the periradicular tissues that surround the root of the tooth. Treatment of pulp inflammations divided into several steps: mechanical and chemical preparation, shaping and obturation.

Goals and Objectives

1. Study about different methods in preparation of root canal in endodontic system;

2. Compare between manual and rotary technique in root canal preparation;

3. To find out the advantages and disadvantages manual files compare to rotary system;

4. To evaluate the efficiency of rotary instruments in mechanical preparation of root canal.

Material and Methods. Manual instrumentation compare to rotary system in Endodontic system were investigated in patients that approachthe Stomatological Therapeutical Department of University clinic Nr.1 in Toma Ciorba 42. We got 40 patients between ages 18-55, 20 male and 20 female.25 of the patients with diagnose of Pulpitis and 15 with diagnose of apical periodontitis. 25 of the patients were treated in one visit of endodontic treatment and 15 of the patients were treated in two visits of endodontic treatment.**.** Evaluation of extracted teeth. In addition to evaluation of the patient, I choose to perform a research on extracted teeth, in order to evaluate the preparation of the root canal. I choose 8 extracted upper and lower incisors and perform in them endodontic treatment with different methods of preparation and shaping of root canal.

From each group of teeth that was prepared with the same endodontic system, I filled one tooth with cold lateral condensation using GuttaPercha and Ah+. After the teeth were prepared they were placed in wax plates and was done X-ray from two directions: Buccal and Proximal. The systems that were used are Dia PT, SAF, Pro- taper and K-file.

Conclusion

1. Nowadays beside the manual files that are manufactured from stainless steel or nickel titanium are available also rotary systems as Pro Taper, SAF, Dia-PT, Wave One and Mtwo and other rotary system.

2. Manual system and rotary system are both effectively remove debris from root canal, however, time for root canal preparation is significantly shorter using the rotary system than using the manual system. In case when anatomy of root canal is difficult for enlargement and shaping, in curved canal or C-shaped canals, should used SAF.

3. The advantages of rotary system compare to manual files are preparation and shaping the root canal much more smoothly and consistently, and in conical shape, procedures are more reliable with less chance of complications. Rotary instrument ensures faster endodontic procedure however in the same time removing of dentin is more excessive, except SAF which is micro-invasive preparation of root canal.

4. Pro Taper and Dia-PT are similar in their shape and cross section, and their features in root canal preparation is similar, however, self adjusting file is micro- invasive technique, due to the fact that the file adapt the shape of the root canal, and combines mechanical preparation with irrigation of the root canal. The patient were treated by different method of endodontic files, manual and rotary systems.

Key words: Endodontic treatment Manual files, rotary files, Pro-taper, SAF, Dia-PT.